

### REMARKS

Applicant has carefully studied the Final Office Action of January 27, 2005, and offers the following remarks in response thereto.

Before addressing the rejections based on Baum et al. (hereinafter "Baum"), Applicant provides a brief summary of the present invention so that the remarks related to Baum are considered in the proper context. The present invention is a firewall that helps a first network interoperate with a second network. It is presumed that the two systems are both packet based systems and use some variation of the OSI protocol stack model, such as a TCP/IP stack. The firewall of the present invention is actually two firewalls in one. The first firewall is a packet filter that operates on the bearer channel of a communication. The bearer channel usually handles the voice part of a Voice over IP (VoIP) phone call, and thus all the packets associated with the bearer channel are filtered by the packet filter in the first firewall. The second firewall is an application proxy that operates on the signaling channel part of the VoIP call. Each VoIP phone call has a signaling channel that is responsible for call set up, call take down, and other similar signaling functions. The present invention applies the application proxy firewall to the signaling channel at all stages of the call. When the two firewalls are combined and operate together, the parts of the call that are sensitive to attack (i.e., the signaling channel) are subjected to the greatest scrutiny while the parts of the call that are sensitive to delays are processed by the relatively fast packet filter (i.e., the bearer channel).

Claims 1, 2, 4-6, 10-13, 17, and 18 were rejected under 35 U.S.C. § 102(e) as being anticipated by Baum. Applicant respectfully traverses.

Anticipation requires identity between the reference and the claimed invention. That is, for the Patent Office to prove anticipation, the reference must not only disclose each and every claim element in a single reference, but also, the elements of the reference must be arranged as claimed. MPEP § 2131.

Applicant previously argued that Baum did not teach an application proxy while pointing out the part of Baum that denigrated application proxies. While Applicant's initial statement that Baum does not teach an application proxy is a bit hyperbolic, the Patent Office's use of this part of Baum in its anticipation analysis is improper. Specifically, as noted above, in an anticipation analysis, the elements of the reference must be arranged as claimed. Baum's discussion of the application proxy occurs in the background of the invention portion of Baum's patent, and is not

interrelated with the parts of the disclosure relating to Baum's invention. Further, the Patent Office relies on the detailed description part of Baum's disclosure in formulating the rejection. However, the detailed description part of Baum's disclosure in no fashion interrelates to the application proxy briefly discussed in the background portion of Baum. To this extent, the application proxy of Baum is not arranged relative to the packet filter of Baum, and does not satisfy the requirement that the elements of the reference be arranged as claimed to support an anticipation analysis. Since Baum's application proxy is not arranged relative to the packet filter in the manner claimed, Baum does not establish anticipation of the claims even if Baum teaches an application proxy.

Turning to the claim language specifically, claim 1 recites a firewall comprising an application proxy and a packet filter. Baum discloses a firewall 338 that has a packet filter 340, a switch 342, and a control processor 344. When the filter 340 receives a call set up message (i.e., a signaling message), the filter 340 duplicates the call set up message, passes the original data stream to the gateway 320, and passes the replicated stream to the control processor 344 (Baum, col. 6, lines 24-32). The control processor 344 evaluates the call set up message and customizes the filter 340 for that call (Baum, col. 7, lines 42-46). The Patent Office equates the filter 340 to the claimed packet filter. The Patent Office further equates the control processor 344 with the application proxy. As noted above, the control processor 344 is not the same thing as the application proxy recited in Baum's background, and it is inappropriate to interrelate the two in an anticipation analysis.

Further, Applicant's recited application proxy is functionally different from the control processor 344 and the control processor 344 does not teach Applicant's application proxy. The difference between the two is in how the two elements process signaling packets after call set up. Claim 1 recites "applying the Internet protocol packets associated with the signaling channel and the control channel to the application proxy. . . ." Implicit in this claim language is that all the packets associated with the signaling channel and the control channel are applied to the application proxy. In contrast, Baum's control processor 344 drops out of the call (as previously argued) and does not process the call take down or other signaling channel or control channel packets as recited in the claim. To this extent, Baum's control processor 344 is not explicitly an application proxy, nor does Baum's control processor 344 perform the recited function of the application proxy of claim 1. Since Baum's control processor 344 does not perform the

application proxy's recited function of claim 1, and Baum's application proxy is not combined with a packet filter as recited in claim 1, Baum does not anticipate claim 1. Since Baum does not anticipate claim 1, Applicant requests withdrawal of the § 102 rejection of claim 1 at this time.

Claims 2, 4-6, 10, and 11 depend from claim 1, and are not anticipated at least for the same reasons. Applicant requests withdrawal of the § 102 rejection of claims 2, 4-6, 10 and 11 at this time.

Claim 12 recites similar elements. Specifically, claim 12 recites "applying the internet protocol packets associated with the signaling channel and the control channel to an application proxy [and] applying the internet protocol packets associated with the bearer channel to a packet filter." As explained above, Baum's application proxy is not combined with the packet filter, and Baum's control processor 344 does not have all the signaling channel and control channel packets applied to it. To this extent, Baum does not anticipate claim 12, and Applicant requests withdrawal of the § 102 rejection of claim 12 at this time. Claim 13 depends from claim 12, and is not anticipated at least for the same reasons. Applicant requests withdrawal of the § 102 rejection of claim 13 at this time.

Claim 17 recites elements substantially identical to those discussed for claim 12 and thus, claim 17 is not anticipated at least for the same reasons. Claim 18 depends from claim 17, and is likewise not anticipated at least for the same reasons. Applicant requests withdrawal of the § 102 rejection of claims 17 and 18 at this time.

Claims 3, 7-9, 14-16, and 19-21 were rejected under 35 U.S.C. § 103 as being unpatentable over Baum. Applicant respectfully traverses. For the Patent Office to modify a reference in an obviousness analysis, the Patent Office must do two things. First, the Patent Office must articulate a motivation to modify the reference, and second, the Patent Office must support the motivation to modify the reference with actual evidence. *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000). Further, to establish *prima facie* obviousness, the Patent Office must still show where each and every element of the reference is taught or suggested in the modified reference. MPEP § 2143.03.

Applicant initially notes that the Patent Office has not provided any evidence to support the modifications to Baum. While the Patent Office allegedly takes Official Notice of several facts, these facts in and of themselves are insufficient to establish a motivation to modify Baum. Rather, the facts allegedly established by the Official Notice merely assert that an element is

known. The mere existence of an element is insufficient to establish a motivation to modify a reference to include the element. To this extent, all the modifications to Baum are improper. Since the modifications to Baum are improper, and Baum absent modification admittedly does not teach or suggest all the elements, Baum cannot establish obviousness for these claims.

Specifically, with respect to claim 3, the Patent Office opines that real-time fax applications over the internet were well known, and that the modification would be "to apply the same security measure to internet fax transmissions as one would with other kinds of internet transmissions." This asserted motivation for the modification lacks the requisite actual evidence set forth by the Federal Circuit. Therefore, this modification is improper, and claim 3 is allowable.

With respect to claim 7, the Patent Office asserts that Network Address Translation (NAT) is well known, and opines that the motivation to modify Baum to include NAT is "to allow Internet Protocol packets received from the outside to reach their destination, specifically by the proper ports and addresses, on the internal network guarded by the firewall." Again, this asserted motivation lacks any evidence in support thereof. Since the motivation is not properly supported, the motivation is improper. Since the motivation is improper, the modification is improper, and claim 7 is allowable.

With respect to claim 8, the Patent Office asserts that the motivation to modify Baum is "to allow Internet Protocol packets received from the outside to reach their destination, specifically by the types of content and session request such as FTP, gopher, or telnet, on the internal network guarded by the firewall." Again, this asserted motivation lacks any evidence in support thereof. Since the motivation is not properly supported, the motivation is improper. Since the motivation is improper, the modification is improper, and claim 8 is allowable.

With respect to claim 9, the Patent Office asserts that the motivation to modify Baum is "to allow Internet Protocol packets received from the outside to reach their destination on the internal network guarded by the firewall." Again, this asserted motivation lacks any evidence in support thereof. Since the motivation is not properly supported, the motivation is improper. Since the motivation is improper, the modification is improper, and claim 9 is allowable.

As is readily apparent, the Patent Office has not provided any evidence to support the motivations set forth by the Patent Office. For these reasons the motivations are improper, and

the Patent Office's rejections fail to establish obviousness. Applicant requests withdrawal of the § 103 rejections on this basis.

Even if the modifications to Baum are proper, points which Applicant does not concede, modified Baum does not teach or suggest the application proxy (or control processor 344) handling all the signaling and control channel packets as recited in the independent claims. Since modified Baum does not teach or suggest a claim element, modified Baum does not establish obviousness. Applicant requests withdrawal of the § 103 rejections on this basis as well.


Claims 8, 15, and 20 deserve special mention in that they recite that the NAT is performed on layer 7 of the Internet Protocol packets associated with the signaling channel and the control channel. Even if NAT is well known, Applicant is unaware of any teaching or suggestion in the general knowledge of those skilled in the art that NAT on layer 7 is known. Applicant refers the Patent Office to the discussion in Applicant's disclosure on page 2, lines 8-16 that discusses that NAT is not performed on application layers. This position is repeated at page 5, lines 1-19 and page 12, lines 6-19. Thus, while NAT may be old, there is no evidence that NAT on layer 7 is old or well known. Applicant requests that the Patent Office substantiate its assertion that NAT on layer 7 is old and well known such that Official Notice of this fact is appropriate. Absent proof, the Patent Office has not shown the element for which Official Notice is taken and the Patent Office has not established obviousness for claims 8, 15, and 20 on this basis.

Applicant requests reconsideration of the rejections in light of the remarks presented herein. Applicant earnestly solicits claim allowance at the Examiner's earliest convenience.

Respectfully submitted,

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